

Amendments to the Specification:

Please amend the above-identified application as follows:

Please replace paragraph [032] with the following amended paragraph:

[0032] The apparatus of the invention includes a multiple battery system. The multiple battery system includes a battery housing having a common positive terminal and a common negative terminal each coupled to an electrical system. The main battery has a main positive output and a main negative output and the at least one auxiliary battery has an auxiliary positive output and an auxiliary negative output. The multiple battery system includes a main electrical circuit that couples the common positive terminal with at least one switching device. The at least one switching device has at least two operating positions. In a first operating position of the at least two operating positions the common positive terminal is coupled to the main positive output of the main battery and to a one-way charging circuit that precedes and is coupled to the auxiliary positive output, ~~putting the batteries in parallel with each other~~. In a second operating position the common positive terminal is coupled through the at least one switching device to a point in the main circuit beyond the one-way charging circuit that couples to the auxiliary positive output, coupling the common positive terminal to the auxiliary positive output.

Please replace paragraph [0045] with the following amended paragraph:

[0045] The apparatus of the instant invention also includes a multiple battery system comprising a battery housing having a common positive terminal and a common negative terminal coupled to an electrical system; a main battery having a main positive output and a main negative output; an auxiliary battery having an auxiliary positive output and an auxiliary negative output; a switching device with at least two operating positions, the at least two operating positions selectively engaging said main battery and said auxiliary battery. The first operating position of said at least two operating positions can have the common positive terminal coupled to the main positive

output and auxiliary positive output ~~in parallel with each other, with~~ a one-way charging circuit ~~between and~~ preceding the auxiliary battery positive output. The second operating position of said at least two operating positions can couple the common positive terminal to the auxiliary positive such that the common positive terminal is coupled at a point beyond the one-way charging circuit to the auxiliary battery positive.

**Please replace paragraph [0055] with the following amended paragraph:**

[0055] The apparatus of the invention also includes an auxiliary battery attachment system having a main battery with an at least one main positive output and an at least one main negative output and a circuitry housing having an at least one positive common terminal, an at least one negative common terminal, an at least one positive coupling and an at least one negative coupling, the at least one positive and negative couplings electrically coupling the at least one positive and at least one negative main battery outputs to the at least one positive and at least one negative common terminal which are in turn coupled to an electrical system. The system also includes an at least one auxiliary battery having an auxiliary positive output and an auxiliary negative output, each output being electrically coupled to the at least one positive common terminal and at least one negative common terminal, respectively, and a main electrical circuit comprising a coupling of the common positive terminal with an at least one switching device. In the main circuit the at least one switching device having at least two operating positions: a first operating position of the at least two operating positions coupling the common positive terminal through the at least one positive coupling to the main positive output of the main battery and to a one-way charging circuit that precedes and is coupled to the auxiliary positive output ~~putting the batteries in parallel with each other~~; and a second operating position wherein the common positive terminal is coupled through the at least one switching device to a point in the main circuit beyond the one-way charging circuit that couples to the auxiliary positive output.

**Please replace paragraph [0063] with the following amended paragraph:**

[0063] The method of the invention includes a method of detecting a discharge condition fault in an electrical system, which can comprise the method steps of sensing an initial discharge condition within an electrical system of a vehicle or a piece of machinery, switching a battery having a main and auxiliary battery and a switching device with at least two operating positions from a main operating position wherein the main and auxiliary batteries are coupled in an parallel electric circuit with a one way charging diode preceding the auxiliary battery, to an auxiliary operating position in which the auxiliary battery is coupled in series with the electrical system of the vehicle or the piece of machinery and the main battery is electrically isolated. Then utilizing the auxiliary battery in the auxiliary operational position to start the vehicle or piece of machinery and returning the switching device to the normal operating position and engaging the main battery in the normal operating position and determining whether the vehicle or machinery is operational in the normal operating position, failure indicating a general operating fault in the electrical system. The method can also include the step of returning the switching device to the auxiliary position and engaging the auxiliary battery to supply the needed energy to operate the vehicle or machinery and seek repair of the electrical fault.

**Please replace paragraph [0080] with the following amended paragraph:**

[0080] In the exemplary embodiment shown with the three position-switching device 300, the switching device 300 has a first or normal operating mode or position 350. In this position the vehicle or equipment operates off the main battery 100 which is always receiving a charge from the electrical power system of the vehicle or equipment when it is running and charging the auxiliary battery 200, as further described in relation to Figures 3A and 3B below. The switching device 300 would have a secondary or auxiliary position or operating mode 360, wherein the auxiliary battery 200 would be engaged as the sole source of electrical for the vehicle or device,

as further described in relation to figures 4A and 4B below. The second or auxiliary switch operating mode or position 360 would be used for emergency back up when needed to start and or operate the vehicle when the main battery 100 is incapable of starting or operating the vehicle, equipment, or machinery or when cycling the auxiliary battery 200, as discussed below. Finally, a tertiary or storage operating mode or position 370 would be provided wherein the switching device 300 would disconnect both the main battery positive output 110 and the auxiliary battery positive output 210 from the common positive terminal 310 when not in use.

**Please replace paragraph [0081] with the following amended paragraph:**

[0081] Figures 2a and 2b show a top view and a cross-sectional view, respectively, of an exemplary embodiment of the instant invention. In the exemplary embodiment depicted, each of the batteries is comprised of sets of cells contained within a main compartment 109 and an auxiliary compartment 209, respectively. The main battery compartment 109 and auxiliary battery compartment 209, are located one above the other, however, the relative position of each compartment can be varied. The first set of six two-volt main cells 101-106 is coupled in series to form the main battery 100. The second set of six two-volt cells 201-206 is also coupled in series form the standby, auxiliary, or backup battery 200. The first set of six main cells 101-106 that form main battery 100 terminate at main positive output 110 and main negative output 120. Similarly, the second set of six auxiliary cells 201-206 that form the auxiliary battery 100 terminate at auxiliary positive output 210 and auxiliary negative output 220

**Please replace paragraph [0083] with the following amended paragraph:**

[0083] Figures 3a and 3b show a top view and a circuit diagram, respectively, of an exemplary embodiment of the instant invention in a normal operational mode. Figure 3A shows the device in a first switch position 350. In this first, main, or normal switch position or mode 350, indicated in the circuit diagram of figure 3B at switch position S1, the main battery 100 and auxiliary

battery 200 are electrically coupled ~~in parallel~~ to the electrical system (not shown). The electrical system (not shown) is coupled to common positive post 320, which in turn is coupled to the switching device 300. The switching device 300, when in the S1 position or normal operating mode 350, couples connects both the main positive output 110 and, through the one-way charging diode 400, the auxiliary positive output 210 to the common positive post ~~320~~ 310 and, thereby, the electrical system (not shown). Both the main negative output 120 and auxiliary negative output 220 are coupled to the negative output post or terminal 320, which is coupled back to the electrical system (not shown) to complete the connection.

Please replace paragraph [0084] with the following amended paragraph:

[0084] The two batteries are coupled by a one-way charging circuit 400 that precedes the auxiliary battery 200, as indicated in the circuit diagram of Figure 3B. The one-way charging circuit 400 is a one-way circuit allowing for electricity to pass from the electrical system ~~of the vehicle~~ (not shown) to replenish the auxiliary battery 200. As the electrical system ~~of the vehicle~~ (not shown) is providing the current needed to run all the auxiliary equipment, it is simultaneously, through the one-way charging circuit 400, also providing a full charging voltage to the backup or auxiliary or standby battery 200 as well as preventing any discharge from the backup or auxiliary battery 200. Effectively, the one way charging circuit 400 is a one-way electrical “valve” permitting electricity to flow into the auxiliary battery 200 in the main or first switch position 350.

Please replace paragraph [0089] with the following amended paragraph:

[0089] These previous attempts have all disclosed applying the standby battery in parallel to the main battery. The problem with doing this is twofold. First, if there were a short or a dry cell in that main battery, that type of circuit would short the backup battery ~~preventing it from starting the vehicle~~ impairing its ability to start the vehicle. Moreover, even if the electrical system and



main battery were in good condition, the standby battery of the prior art would be saddled with both the load of the starter and the load of the discharged battery. This weakens the standby battery taking away needed electrical power. By isolating the auxiliary battery 200 from the main battery 100 in the auxiliary mode 360, the invention permits the fully charged auxiliary battery 200 to be used independently to start the vehicle or device. Once started, the operating mode can be manipulated back into the first or main operational position 350 and the full electrical energy of the electrical system of the vehicle can be put into charging both the main battery 100 and the auxiliary battery 200. Additionally, failure to continue operating in the normal operating mode would be an indicator that a short or electrical system failure has occurred, as further described herein below.

Please replace paragraph [0090] with the following amended paragraph:

[0090] Figures 5a and 5b show a top down view and a circuit diagram of an exemplary embodiment of the instant invention in an tertiary ~~auxiliary~~ operational mode. An operator or controller manipulates the switching device 300 to the tertiary, auxiliary, or storage position 370, represented by switch position S3 in the circuit diagram of Figure 5B. This position provides for disconnection of both batteries for storage. The S3 position disconnects the main positive output 110 and the auxiliary positive output 210 from the common positive terminal 310 and, thereby, the electrical system of the vehicle or equipment. This is useful if the vehicle or equipment is being placed in storage for instance or if the battery is being stored.